

Linux 101 Challenge: CLI Solutions

Note: Installing non standard commands/programs to solve problems will fetch you 0 points

1. Copy all the files from cli/q-01/from to cli/q-01/to. (2)

```
mkdir to
cp -r from/* to
```

2. So, sudo is used to run commands in super user mode. Figure out a way to use please instead of sudo. So, if \$ sudo xyz works, \$ please xyz should work as well. (5)

Make please as an alias for sudo (3) and store in bashrc (2)

3. cli/q-03 has a lot of files written in UTF-8. Write all the file names which contain the string "acm". (5)

```
grep "acm" -r1 .
```

4. cli/q-04/main.cpp contains a simple hello world program. Compile it to a binary called hello-world. Now to run this from say cli directory, I need to specify the whole path: \$./q-04/hello-world. Figure out a way to run it from any location by entering just \$ hello-world in the command line. (10)

Compile the program (2)

Move it to either /usr/local/bin or /opt/ (8)

Moving it to /bin or /usr/bin is not recommended as these places are not meant for user binaries (7)

Including the current path is not recommended as this path is not meant for user binaries. Always try to follow conventions set. (7)

5. cli/q-05 contains some old blurry images. Add prefix of old- to all the image files. You cannot use the rename command. (10)

```
for f in *; do mv - "$f" "old-$f"; done
# or
ls | xargs -I {} mv old-{}
# or
find * -maxdepth 0 -exec mv {} old-{} \;
```

6. cli/q-06/script.py contains the script we used to generate random files for question 3. Execute this script without using the python command. (5)

Add shebang to the first line and chmod it to an executable

-1 if you added the python2 interpreter path and not python3 path

7. cli/q-07 contains file.c. Delete all the lines that contain the word "struct". (5)

```
sed -i '/struct/d' ./file.c
```

(-1) if you created an extra file. Never assume disk space

8. cli/q-08 contains a lot of c++, java and javascript files. Calculate the number of lines of code of each of the 3 languages. (10)

```
find . -name '*.cpp' | xargs wc -l
```

cloc is not a linux command but an external program

9. cli/q-09 contains a linked list implementation written in java. Unfortunately, the code is in the reverse order. Fix it! (8)

```
sed -i '1!G;h;$!d' SinglyLinkedList.java
```